

Case 3568***Stirpulina* Stoliczka, 1870 (Mollusca, Bivalvia, Anomalodesmata, CLAVAGELLIDAE): proposed conservation by suppression of *Tubolana* Bivona Bernardi, 1832**

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Abstract. The purpose of this application, under Article 23.9.3 and Recommendation 23A of the Code, is to conserve the genus name *Stirpulina* Stoliczka, 1870 for a group of watering pot shells. The genus name *Stirpulina* is in widespread and current use. This name is threatened by the little-used senior subjective synonym *Tubolana* Bivona Bernardi, 1832. It is proposed that the name *Stirpulina* be conserved by the suppression of *Tubolana*.

Keywords. Nomenclature; taxonomy; Bivalvia; Anomalodesmata; CLAVAGELLOIDEA; CLAVAGELLIDAE; *Stirpulina*; *Tubolana*; *Stirpulina coronata*; *Tubolana digitata*; watering pot shells; Upper Cretaceous; Recent.

1. Bivona Bernardi (1832, pp. 55, 56) established the genus name *Tubolana* for a single new fossil species *Tubolana digitata* Bivona Bernardi, 1832 (pp. 56, 57), the type species by monotypy. This name was also spelt as *Tubulana ditata* (p. 56) in the original publication. All subsequent publications have used the spelling *Tubolana digitata* (e.g. di Monterosato, 1877, p. 40; Smith, 1962, p. 170; Keen & Smith, 1969, p. N858; Stallwood, 1995, p. 88).

2. The species name *Tubolana digitata* Bivona Bernardi, 1832 has not been used as a valid name since it was first synonymised with the fossil species *Clavagella bacillaris* Deshayes, 1830 (pp. 239, 240) by di Monterosato, 1877 (p. 40). This synonymy has not been disputed (e.g. Smith, 1962; Keen & Smith, 1969; Stallwood, 1995).

3. Stoliczka (1870, pp. xv, 27, 28) established the generic name *Stirpulina* for two fossil species: *Clavagella coronata* Deshayes, 1824 (pp. 8, 9) and *Clavagella bacillaris* Deshayes, 1830. *Clavagella coronata* is the type species by original designation (Stoliczka, 1870, p. xv).

4. The genus name *Tubolana* Bivona Bernardi, 1832 is a senior subjective synonym of *Stirpulina* Stoliczka, 1870 as the type species of *Tubolana* (*T. digitata*) is a junior subjective synonym of a species included in *Stirpulina* (*Clavagella bacillaris*; see Stallwood, 1995, p. 88).

5. The genus *Stirpulina* is currently composed of fourteen fossil and one extant species known from the Late Cretaceous onwards (see Stallwood, 1995, p. 88). The single extant species is *Clavagella ramosa* Dunker, 1882 (p. 172), which was first transferred to the genus *Stirpulina* by Fujita (1929, p. 62). *Stirpulina ramosa* (Dunker, 1882) has been of considerable use in understanding the evolution of tube formation in bivalve molluscs (e.g. Savazzi, 1982, 2005; Morton, 2005, 2006b, 2007). The genus *Stirpulina* is currently assigned to the family CLAVAGELLIDAE d'Orbigny, 1845 (superfamily CLAVAGELLOIDEA d'Orbigny, 1845, Anomalodesmata Dall, 1889) (see Morton, 2005, p. 204; Bieler et al. in Bouchet & Rocroi, 2010, p. 132).

6. The genus *Stirpulina* has been in widespread and current use since it was first established by Stoliczka in 1870. In the past 50 years, at least 30 publications by 17 different authors using *Stirpulina* as a valid genus have been located (e.g. Hölzl, 1961, p. 65; Smith, 1962, p. 168, 1963, p. 15; Keen & Smith, 1969, p. N858; Buccheri, 1970, p. 241; B.J. Smith, 1976, p. 195; Maxwell, 1978, p. 29; Savazzi, 1982, p. 293; Morton, 1984, p. 464; Pojeta & Sohl, 1987, p. 5, 1988, p. 826; Jones & Nicol, 1989, p. 320; Darga, 1990, p. 20; Mayoral, 1990, p. 117; Stallwood, 1995, p. 84; Dulai, 1996, p. 71; Morton, 2002a, p. 546, 2002b, p. 13; 2003, p. 389, 2004a, p. 37; 2004b, p. 246, 2004c, p. 355; 2005, p. 202; 2006a, p. 187, 2006b, p. 233, 2006c, p. 103, 2007, p. 19, 2009, p. 252; Savazzi, 2005, p. 180; Morton & Grebneff, 2011, p. 125). This fulfils the conditions of Article 23.9.1.2 of the Code (Reversal of Precedence).

7. Since 1899, just five publications using the genus name *Tubolana* have been located. Two publications considered this name to be valid but taxonomically unplaced (Vokes, 1967, p. 341; 1980, p. 214). Two other publications considered this name to be valid and a possible senior synonym of *Stirpulina* but gave preference to the name *Stirpulina* (L.A. Smith, 1962, p. 170; Keen & L.A. Smith, 1969, p. N858). The final and most recent use of the name *Tubolana* was in a reprint of di Monterosato's collected works (Giannuzzi Savelli, 1989, p. 1407), where all instances of the name *Tubolana* (without discussion of the validity of the name) as used by di Monterosato were listed. The post-1899 use of *Tubolana* as a valid generic name in the first four publications means that the conditions of Article 23.9.1.1 of the Code (Reversal of Precedence) are not met and a ruling by the Commission is needed for formal suppression of the name.

8. The generic name *Stirpulina* Stoliczka, 1870 has been used as valid in at least 30 publications in the past 50 years. The generic name *Tubolana* Bivona Bernardi, 1832 has been used as valid only four times since 1899. Although the conditions of Article 23.9.1 for maintaining current usage are not fulfilled, the conservation of the name *Stirpulina* Stoliczka, 1870 would best serve nomenclatural stability.

9. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to suppress the name *Tubolana* Bivona Bernardi, 1832 for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;
- (2) to place on the Official List of Generic Names in Zoology the name *Stirpulina* Stoliczka, 1870 (gender: feminine), type species by original designation *Clavagella coronata* Deshayes, 1824;

- (3) to place on the Official List of Specific Names in Zoology the name *coronata* Deshayes, 1824, as published in the binomen *Clavagella coronata* (specific name of the type species of *Stirpulina* Stoliczka, 1870);
- (4) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the name *Tubolana* Bivona Bernardi, 1832, as suppressed in (1) above.

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